	Application No.	Applicant(s)
Office Action Summary	10/533,724	FONTIJN, WILHELMUS FRANCISCUS JOHANNES
	Examiner	Art Unit
	Tarek Chbouki	2169

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>09/19/2007</u>.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-21</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-21</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

This Office action has been issued in response to amendment filed on 09/19/2007

Claims 1-21 are pending. Applicants' arguments have been carefully and respectfully

considered, but they are not persuasive. Accordingly, this action has been made

FINAL necessitated by amendment.

Claims 1-21 have been examined in response to applicant argument filed on 09/19/2007.

Objection to claims 1-2, 5-6 and 8-13 is withdrawn.

Response to Arguments

Below mentioned, are the arguments presented by Applicant and the corresponding Examiner responses:

With respect to Applicant's argument on page 3 indicating that the prior art (US Patent 6377958, Orcutt,

Niel) used to Reject of Claims 1-6, 8 and 11-14 does not teach the claimed features in regards to **storing**

or reading an indicator, Examiner respectively disagrees with the precedent assertion since Fig. 2 and 3

of Orcutt indicate that the indicator portion is stored in the partition table 204 and Fig. 5 and 6 indicate the

process of reading the partition table and using the indicator to identify the file system and check its

status; Therefore, Orcutt discloses the claimed features with respect to storing and reading an indicator

which indicates whether the main file system data and virtual file system data are consistent.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:
Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any
new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this
title.

1.   Claims 1-14 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-

statutory subject matter The claims lack the necessary physical articles or objects to constitute a machine

or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a

process nor are they a combination of chemical compounds to be a composition of matter. As such, they

fail to fall within a statutory category. They are, at best, functional descriptive material *per se*.

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional

descriptive material." Both types of "descriptive material" are nonstatutory when claimed as descriptive

material *per se*, 33 F.3d at 1360, 31 USPQ2d at 1759. When <u>functional</u> descriptive material is recorded on

some computer-readable medium, it becomes structurally and functionally interrelated to the medium and

will be statutory in most cases since use of technology permits the function of the descriptive material to

be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994)

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making

and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it

pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode

contemplated by the inventor of carrying out his invention.

Claims 15-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written

description requirement. The claims contain subject matter "a head for at least" which was not described

in the specification in such a way as to reasonably convey to one skilled in the relevant art that the

inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis

for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the

United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by

another filed in the United States before the invention by the applicant for patent, except that an international

application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an

application filed in the United States only if the international application designated the United States and was

published under Article 21(2) of such treaty in the English language.

2.   Claims 1-6,8,11-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Neil

Orcutt

        (US Patent 6377958)

As per claim 1, Orcutt discloses:

~~Recordable~~ **A Recordable record carrier having a user area ~~(UA)~~ for storing user data**

and a management area ~~(MA)~~ for storing management data,

(Column 12,line 56-57, "one copy of user data and system information stored on disk"),

indicates the storage of the user and system data

said management area comprising

a main file system area (70) for storing main file system data (mFS) of a main file

system,

a virtual file system area (71) for storing virtual file system data (vFS) of a virtual file

system in raw format,

(Column 5, line 1-6 "The file system associated with a specific partition of the disk 100

determines the format in which data is stored in the partition, namely, the physical arrangement

of user data and of file system structures in the portion of the disk 100 that is delimited by the

starting address 302 and the ending address 304 of the partition in question."), In Orcutt

invention the file main file system is referred to as advanced file system such as NTFS or ext2

and the virtual file system refer to the one to be convert to, thus it illustrates the storage of the

main(original) and virtual(to be converted to) file systems in it format.

and an indicator area (72) for storing an indicator (ID) indicating whether the main system

data (mFS) and the virtual file system data (vFS) are consistent.

(Fig. 3, Column 4, line 57-61 "Each partition identifier 204 also includes a system indicator 310.

The system indicator 310 identifies the type of file system contained in the partition, which in

turn defines the physical arrangement of data that is stored in the partition on the disk") and

(Column 10, line 3-6 "The verifying step 404 preferably checks the internal consistency of all

redundant copies of system information, in addition to checking the integrity of the system in

other ways.) and

(Column 13, lines 18-24, During an identifying step 504, the file system being used in the

selected partition is identified by checking the system indicator 310. The system indicator may

identify an advanced file system such as NTFS or ext2. However the step 504 may also identify

a proprietary or in-progress partition which indicates that partition conversion was interrupted,

such as a recovery partition indicator), illustrate the identification of the source/target file

systems and the storage of the indicator section plus the process of verifying that file systems

consistency.

As per claim 2, Orcutt discloses

(Record) **The recordable carrier as claimed in claim 1, wherein said virtual file system**

area (72) comprises a static area for storing static parts of said virtual file system data

and a volatile area for storing volatile parts of said virtual file system data(vFS)

(Column 5, line 1-6 "The file system associated with a specific partition of the disk 100

determines the format in which data is stored in the partition, namely, the physical

arrangement of user data and of file system structures in the portion of the disk 100 that

is delimited by the starting address 302 and the ending address 304 of the partition in

question.") and (Column 10, lines 51-55, The file system structures of the converted (e.g.,

FAT) partition may be created in volatile memory and then written to disk in one or more writes

of entire system structures, or they may be written in pieces as data values are processed),

touch base upon the storage of the non-volatile/volatile data of file system .

so that, if the indicator (ID) indicates an inconsistency between the main file system data

(mFS) and the virtual file system data (vFS), only the volatile parts of the virtual file

system data (vFS) need to be reconstructed from the main file system data (mFS).

(Column 13, line 18-30 "During an identifying step 504, the file system being used in the

selected partition is identified by checking the system indicator 310. The system indicator may

identify an advanced file system such as NTFS or ext2. However the step 504 may also identify

a proprietary or in-progress partition which indicates that partition conversion was interrupted,

such as a recovery partition indicator. If a recovery partition indicator is present, recovery

proceeds by backing out all changes, by continuing the conversion from the last logged

checkpoint, or by creating a new set of FAT file system structures without regard to work that

may have been done on previously creating such structures in this partition.") indicates the

process of reconstructing the file system structure when the indicator catches an anomalies.

As per claim 3, Orcutt discloses:

(Record) **The recordable carrier as claimed in claim 1, wherein said indicator (ID)**

comprises the last update date of the main file system data (mFS) and of the virtual file

system data (vFS).

(Column 11, line 6-12 "During an updating step 414, the boot sector is updated. In particular, the

partition table 200 is updated to make the system indicator 310 indicate the type of FAT file

system created, rather than indicating an NTFS system. This completes the conversion, since it

causes the operating system to treat the converted partition as a FAT partition, rather than an

NTFS or ext2 partition") and (Column 19, line 40-41 "The dates and FAT-style file attributes are

converted to FAT directory format and added to the entry touches base upon the update

process of the system indicator including the dates.

As per claim 4, Orcutt discloses:

(Record) **The recordable carrier as claimed in claim 1, wherein said indicator (ID)**

comprises a flag which is set when the virtual file system data (vFS) are updated,

indicating that the virtual file system data (vFS) are valid, and which is reset when the

main file system data (mFS) are updated independently, indicating that the virtual file

system data (vFS) are invalid.

(Column 7, line 49-64 "Inventive systems include at least one computer having a processor in

operable connection with a memory, and a partitionable storage medium having at least one

partition. The partition is identified by file system identification information such as a partition

table system indicator. The partition contains an advanced file system which is accessible for

manipulation by use of the processor. The system is configured to perform a method to at least

attempt conversion of an advanced file system to a simpler file system: checking for at least one

preventive condition in the advanced file system that prevents completion of a file system

conversion from the advanced file system to the simpler file system; discontinuing an attempted

file system conversion without completing it if such a preventive condition is found; and

completing the file system conversion if no such preventive condition is found."), touches base

upon the determination of the validity of the file system in order to conduct the conversion

process.

As per claim 5, Orcutt discloses

(Record) The recordable carrier as claimed in claim 1, wherein said indicator area (72)

is present in an easily accessible location, in particular in a disk navigation area (DN), in

a logical volume integrity descriptor (LVID), or in a chip in the record carrier (7).

(Column 4, lines 31-40, As shown in FIG. 2, one version of an IBM-compatible partition table

200 includes an Initial Program Loader ("IPL") identifier 202, four primary partition identifiers

204, and a boot identifier 206. As shown in FIG. 3, each partition identifier 204 includes a boot

indicator 300 to indicate whether the partition in question is bootable. At most one of the

partitions in the set of partitions defined by the partition table 200 is bootable at any given time

but "boot management" tools are commercially available to facilitate booting from different

partitions, illustrate the storage and accessibility of the indicator portion).

As per claim 6, Orcutt discloses:

(Record) The recordable carrier as claimed in claim 1, wherein said virtual file system

area (71) further comprises a directory area for storing the directory structure of the

virtual file system.

(Colum 10, line 46-55 "A file system structure creating step 410 creates file system structures

for the simpler file system, based on the data values in the advanced file system structures and

the feature determinations. For instance, FAT file allocation tables and a FAT root directory may

be created from NTFS file system structures. The file system structures of the converted (e.g.,

FAT) partition may be created in volatile memory and then written to disk in one or more writes

of entire system structures, or they may be written in pieces as data values are processed.")

indicates the process of storing the file system directory structure.

As per claim 8, Orcutt discloses

(Recording) A recording apparatus for recording information on a recordable record

carrier (7) having a user area (UA) for storing user data and a management area (MA) for

storing management data,

(Column 3, line 65 "the distinction between system and user areas") illustrate the presence of

system and use areas.

said apparatus comprising

- recording means (6) for recording main file system data (mFS) of a main file system in a

main file system area (70) of said management area (MA),

(Column 12, line 56-57, "at least one copy of user data and system information stored on disk")

and (Column 3, line 65 "the distinction between system and user areas") illustrate the storage of

the system data.

virtual file system data (vFS) of a virtual file system in raw format in a virtual file system

area

(71) of said management area (MA),

Column 19, line 34-37 "The module 614 then creates an empty FAT in the computer's memory

and at the beginning of the partition. The code 624 descends the directory tree in the source file

system, reading each directory entry.") touches base upon the concept of recording the file

system.

and an indicator (ID) indicating whether the main file system data (mFS) and the virtual

file system data (vFS) are consistent in an indicator area (72) of said management area

(MA),

Column 4, line 57-61 "Each partition identifier 204 also includes a system indicator 310. The

system indicator 310 identifies the type of file system contained in the partition, which in turn

defines the physical arrangement of data that is stored in the partition on the disk") and (Column

10, line 3-6 "The verifying step 404 preferably checks the internal consistency of all redundant

copies of system information, in addition to checking the integrity of the system in other ways.)

illustrate the storage of of the indicator section plus the process of verifying that file systems

data are consistent.

- reading means (6) for reading said user data and said management data,

(Column 26, 38-40 "The computer 602 is capable of using one or more floppy drives, tape

drives, optical drives and/or other means to read a storage medium.") illustrates the reading

process of the storage media containing user data.

memory means (8) for storing said virtual file system data (vFS) ,

(Column 10, line 4653 "A file system structure creating step 410 creates file system structures

for the simpler file system, based on the data values in the advanced file system structures and

the feature determinations. For instance, FAT file allocation tables and a FAT root directory may

be created from NTFS file system structures. The file system structures of the converted (e.g.,

FAT) partition may be created in volatile memory") indicates the memery storage form of the file

system.

conversion means (9) for converting said main file system data (mFS) into said virtual

file system data (vFS) and vice versa for storage on the record carrier (7)

(Column 6, line 20-33 "Conversion from a simpler file system, such as a FAT file system, to a

more complex or advanced file system, such as NTFS or HPFS or AFS, is relatively straight-

forward because one starts with source file system whose features are a subset or special case

of the target file system's features. By contrast, converting from a more advanced file system to

a simpler file system--and doing so in-place, safely, and efficiently--requires new tools and

techniques. Thus, it would be an advancement in the art to provide improved tools and

techniques for file system conversion, such as systems and methods for converting NTFS

partitions to FAT format in-place without destroying user data. Such tools and techniques are

disclosed and claimed herein."), illustrates the conversion process.

and/or for output to an external host device (2, 3) if said indicator (ID) indicates an

inconsistency between the main file system data (mFS) and the virtual file system data

(vFS),

and an interface (4, 5) for communicating with a host device (2, 3).

(Column 18, line 44-49 "A piece of user interface code 620 displays options and status

(including, e.g., any error/warning messages); obtains user commands, preferences, and

selections; provides assistance in the form of help files or wizards, and otherwise facilitates use

of the invention. As noted, the user interface 620 may permit remote control of the main routine

616 over a computer network."), illustrates the use of an external host in order to conduct a

remote control procedure.

As per claim 11, Orcutt discloses

(Recording) **A recording method for recording information on a recordable record carrier**

(7) having a user area (UA) for storing user data and a management area (MA) for storing

management data,

(Column 3, line 65 "the distinction between system and user areas") illustrate the presence of

system

and use areas.

said method comprising the steps acts of:

- reading main file system data (mFS) of a main file system stored

(Column 26, 38-40 "The computer 602 is capable of using one or more floppy drives, tape

drives, optical drives and/or other means to read a storage medium.") illustrates the reading

process of the storage media containing system data.

in a main file system area (70) of said management area (MA) ,

- converting said main file system data (mFS) into said virtual file system data (vFS) for

storage on the record carrier (7) and/or for output to an external host device (2, 3),

(Column 6, line 20-33 "Conversion from a simpler file system, such as a FAT file system, to a

more complex or advanced file system, such as NTFS or HPFS or AFS, is relatively straight-

forward because one starts with source file system whose features are a subset or special case

of the target file system's features. By contrast, converting from a more advanced file system to

a simpler file system--and doing so in-place, safely, and efficiently--requires new tools and

techniques. Thus, it would be an advancement in the art to provide improved tools and

techniques for file system conversion, such as systems and methods for converting NTFS

partitions to FAT format in-place without destroying user data. Such tools and techniques are

disclosed and claimed herein.") and (Column 18, line 44-49 "A piece of user interface code 620

displays options and status (including, e.g., any error/warning messages); obtains user

commands, preferences, and selections; provides assistance in the form of help files or wizards,

and otherwise facilitates use of the invention. As noted, the user interface 620 may permit

remote control of the main routine 616 over a computer network."), illustrates the conversion

process and use of an external host for remote control.

 storing said virtual file system data (vFS) in a virtual file system area (71) of said

management area (MA) in raw format, storing an indicator (ID) indicating whether the

main system data (mFS) and the virtual file system (8) data (vFS) are consistent in an

indicator area (72) of said management area (MA) .

Column 4, line 57-61 "Each partition identifier 204 also includes a system indicator 310. The

system indicator 310 identifies the type of file system contained in the partition, which in turn

defines the physical arrangement of data that is stored in the partition on the disk") and (Column

10, line 3-6 "The verifying step 404 preferably checks the internal consistency of all redundant

copies of system information, in addition to checking the integrity of the system in other ways.)

illustrate the storage of the indicator section plus the process of verifying that file systems data

are consistent.

As per claim 12, Orcutt discloses

(Recording) A recording method for recording information on a recordable record

carrier (7) having a user area (UA) for storing user data and a management area (MA) for

storing management data,

(Column 3, line 65 "the distinction between system and user areas") illustrate the presence of

system

and use areas.

said method comprising the (steps) acts of:

- reading an indicator (ID), which indicates whether main file system data (mFS) of a main

file system stored in a main file system area (70-) of said management area (MA)

(Column 4, line 57-61 "Each partition identifier 204 also includes a system indicator 310. The

system indicator 310 identifies the type of file system contained in the partition, which in turn

defines the physical arrangement of data that is stored in the partition on the disk"), illustrates

the system indicator concept.

and virtual file system data (vFS) of a virtual file system stored in raw format in a virtual

file system area (71) are consistent, from an indicator area (72) of said management area

(MA) ,

(Column 10, line 3-6 "The verifying step 404 preferably checks the internal consistency of all

redundant copies of system information, in addition to checking the integrity of the system in

other ways.) illustrate the storage of the indicator section plus the process of verifying that file

systems data are consistent.

- reading said main file system data (mFS) from said main file system area (70) and

reconstructing at least part of said virtual file system data (vFS) from said main file

system data (mFS) if said indicator (ID) indicates an inconsistency,

(Column 13, line 18-30 "During an identifying step 504, the file system being used in the

selected partition is identified by checking the system indicator 310. The system indicator may

identify an advanced file system such as NTFS or ext2. However the step 504 may also identify

a proprietary or in-progress partition which indicates that partition conversion was interrupted,

such as a recovery partition indicator. If a recovery partition indicator is present, recovery

proceeds by backing out all changes, by continuing the conversion from the last logged

checkpoint, or by creating a new set of FAT file system structures without regard to work that

may have been done on previously creating such structures in this partition.") illustrates the roll

back of the conversion process if an error is encountered.

- reading at least part of said virtual file system data (vFS)

from said virtual file system area (71), and -exposing the virtual file system data (vFS) to

an external host device (2) .

(Column 10, line 46-55 "A file system structure creating step 410 creates file system structures

for the simpler file system, based on the data values in the advanced file system structures and

the feature determinations. For instance, FAT file allocation tables and a FAT root directory may

be created from NTFS file system structures. The file system structures of the converted (e.g.,

FAT) partition may be created in volatile memory and then written to disk in one or more writes

of entire system structures, or they may be written in pieces as data values are processed.")

and (Column 18, line 44-49 "A piece of user interface code 620 displays options and status

(including, e.g., any error/warning messages); obtains user commands, preferences, and

selections; provides assistance in the form of help files or wizards, and otherwise facilitates use

of the invention. As noted, the user interface 620 may permit remote control of the main routine

616 over a computer network."), illustrate the process of reading file system and the use of an

external host in order to conduct a remote control procedure.

As per claim 13, Orcutt discloses

(Recording) A recording method as claimed in claim 12, further

comprising the steps acts of:

- setting the indicator (ID) such that it indicates an inconsistency if the virtual file

system data (vFS) and/or the main file system data (mFS) are changed,

(Column 4, line 57-61 "Each partition identifier 204 also includes a system indicator 310. The

system indicator 310 identifies the type of file system contained in the partition, which in turn

defines the physical arrangement of data that is stored in the partition on the disk")

(column 7, line 49-64 "Inventive systems include at least one computer having a processor in

operable connection with a memory, and a partitionable storage medium having at least one

partition. The partition is identified by file system identification information such as a partition

table system indicator. The partition contains an advanced file system which is accessible for

manipulation by use of the processor. The system is configured to perform a method to at least

attempt conversion of an advanced file system to a simpler file system: checking for at least one

preventive condition in the advanced file system that prevents completion of a file system

conversion from the advanced file system to the simpler file system; discontinuing an attempted

file system conversion without completing it if such a preventive condition is found; and

completing the file system conversion if no such preventive condition is found.") , illustrates the

process of determining file system constancy.

And - storing the set indicator ~~(ID)~~ in said indicator area ~~(72)~~.

(Column 4, line 57-61 "Each partition identifier 204 also includes a system indicator 310. The

system indicator 310 identifies the type of file system contained in the partition, which in turn

defines the physical arrangement of data that is stored in the partition on the disk") touches

base on the system indicator storage.

As per claim 14, Orcutt discloses:

(Currently Amended) ~~Computer~~ A computer readable medium embodying a computer

program, the computer program comprising computer program means for causing a

computer to perform the ~~steps~~ acts of the method as claimed in claim ii when said

computer program is run on ~~a~~ the computer.

(Column 11, line 42-The system 600 includes at least one computer 602 which has a processor

604 for executing program instructions, a memory 606 for storing program instructions and

data," illustrates the program concept running on a computer.

As per claim 15, Orcutt discloses:

(New) A device comprising:

a head for at least one of reading from and writing on a first memory at least one of main

data and virtual data;

(Column 11, lines 51-54, memory 606 and the partitionable storage medium 608 can be written

and read by execution of appropriate processor 604 instructions, direct memory access, or other

familiar means).

a converter configured to read an indicator from the removable memory and to convert

main data to virtual data if the indicator indicates an inconsistency between the main

data and the virtual data, and otherwise read the virtual data;

(Fig. 5, Column 7, lines 52-64, The partition is identified by file system identification information

such as a partition table system indicator. The partition contains an advanced file system which

is accessible for manipulation by use of the processor. The system is configured to perform a

method to at least attempt conversion of an advanced file system to a simpler file system:

checking for at least one preventive condition in the advanced file system that prevents

completion of a file system conversion from the advanced file system to the simpler file system;

discontinuing an attempted file system conversion without completing it if such a preventive

condition is found; and completing the file system conversion if no such preventive condition is

found, indicate the filesystem conversion after checking the its status for integrity).

and a second memory for storing the virtual data.

(Column 1, lines 44-48, Optical or cubical disks may be accessed by other means, such as

photoemitters or photoreceptors, and flash memory or other memory disks are accessed by

electronic circuits familiar to those of skill in the art, indicate the use of a flash memory to store

data).

As per claim 16, Orcutt discloses:

(New) The device of claim 15, wherein the virtual data includes a static part and a volatile part,

(Column 5, line 1-6 "The file system associated with a specific partition of the disk 100 determines the format in which data is stored in the partition, namely, the physical arrangement of user data and of file system structures in the portion of the disk 100 that is delimited by the starting address 302 and the ending address 304 of the partition in question.") and (Column 10, lines 51-55, The file system structures of the converted (e.g., FAT) partition may be created in volatile memory and then written to disk in one or more writes of entire system structures, or they may be written in pieces as data values are processed), touche base upon the storage of the non-volatile/volatile data of file system

and wherein only the volatile part is reconstructed from the main data based on the indicator

(Column 13, line 18-30 "During an identifying step 504, the file system being used in the selected partition is identified by checking the system indicator 310. The system indicator may identify an advanced file system such as NTFS or ext2. However the step 504 may also identify a proprietary or in-progress partition which indicates that partition conversion was interrupted, such as a recovery partition indicator. If a recovery partition indicator is present, recovery proceeds by backing out all changes, by continuing the conversion from the last logged checkpoint, or by creating a new set of FAT file system structures without regard to work that may have been done on previously creating such structures in this partition.") indicates the process of reconstructing the file system structure when the indicator catches an anomalies.

As per claim 17, Orcutt discloses:

(New) The device of claim 15, wherein the indicator comprises last update dates of the main data and of the virtual data.

(Column 11, line 6-12 "During an updating step 414, the boot sector is updated. In particular, the partition table 200 is updated to make the system indicator 310 indicate the type of FAT file system created, rather than indicating an NTFS system. This completes the conversion, since it causes the operating system to treat the converted partition as a FAT partition, rather than an NTFS or ext2 partition") and (Column 19, line 40-41 "The dates and FAT-style file attributes are converted to FAT directory format and added to the entry touches base upon the update process of the system indicator including the dates.

As per claim 18, Orcutt discloses:

(New) The device of claim 15, wherein the indicator comprises a flag which is set when the virtual data are updated, indicating that the virtual data are valid,

(Column 7, line 49-64 "Inventive systems include at least one computer having a processor in operable connection with a memory, and a partitionable storage medium having at least one partition. The partition is identified by file system identification information such as a partition table system indicator. The partition contains an advanced file system which is accessible for manipulation by use of the processor. The system is configured to perform a method to at least attempt conversion of an advanced file system to a simpler file system: checking for at least one preventive condition in the advanced file system that prevents completion of a file system conversion from the advanced file system to the simpler file system; discontinuing an attempted file system conversion without completing it if such a preventive condition is found; and completing the file system conversion if no such preventive condition is found."), touches base

upon the determination of the validity of the file system in order to conduct the conversion

process.

and which is reset when the main data are updated independently, indicating that the

virtual file system data are invalid.

(Fig 5 and column 13, lines 18-20, During an identifying step 504, the file system being used in

the selected partition is identified by checking the system indicator 310 and lines and lines 33-

36, During a checking step 506, the file system status is checked to determine whether the

system 600 is in a known state, that is, a state in which necessary assumptions about file

system structures hold true. Illustrates the the cleanup process/reset when an invalid condition

is encountered).

As per claim 19, Orcutt discloses:

(New) The device of claim 15, wherein the indicator is stored in at least one of a disk

navigation area of the first memory,

(Column 4, lines 31-40, As shown in FIG. 2, one version of an IBM-compatible partition table

200 includes an Initial Program Loader ("IPL") identifier 202, four primary partition identifiers

204, and a boot identifier 206. As shown in FIG. 3, each partition identifier 204 includes a boot

indicator 300 to indicate whether the partition in question is bootable. At most one of the

partitions in the set of partitions defined by the partition table 200 is bootable at any given time

but "boot management" tools are commercially available to facilitate booting from different

partitions, illustrate the storage and accessibility of the indicator portion).

a logical volume integrity descriptor of the first memory,

(Column 4, lines 31-40, As shown in FIG. 2, one version of an IBM-compatible partition table

200 includes an Initial Program Loader ("IPL") identifier 202, four primary partition identifiers

204, and a boot identifier 206. As shown in FIG. 3, each partition identifier 204 includes a boot

indicator 300 to indicate whether the partition in question is bootable. At most one of the

partitions in the set of partitions defined by the partition table 200 is bootable at any given time

but "boot management" tools are commercially available to facilitate booting from different

partitions, illustrate the storage and accessibility of the indicator portion).

and a chip in the first memory.

(Column 1, lines 44-48, Optical or cubical disks may be accessed by other means, such as

photoemitters or photoreceptors, and flash memory or other memory disks are accessed by

electronic circuits familiar to those of skill in the art, indicate the use of a flash memory to store

data).

As per claim 20, Orcutt discloses:

(New) The device of claim 15, wherein the first memory is a removable memory.

(Column 1, lines 44-48, Optical or cubical disks may be accessed by other means, such as

photoemitters or photoreceptors, and flash memory or other memory disks are accessed by

electronic circuits familiar to those of skill in the art, indicate the use of a flash memory to store

data).

As per claim 21, Orcutt discloses:

21.(New) The device of claim 20, wherein the indicator is stored upon an unmount

command of the removable memory.

(Column 1, lines 44-48, Optical or cubical disks may be accessed by other means, such as

photoemitters or photoreceptors, and flash memory or other memory disks are accessed by

electronic circuits familiar to those of skill in the art, indicate the use of a flash memory to store

data).

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described

as set forth in section 102 of this title, if the differences between the subject matter sought to be

patented and the prior art are such that the subject matter as a whole would have been obvious

at the time the invention was made to a person having ordinary skill in the art to which said

subject matter pertains. Patentability shall not be negatived by the manner in which the

invention was made.

4.   Claims 7,9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Orcutt, in view of Moore Christopher S et al (US Patent 6895490)

As per claim 7, Orcutt discloses:

wherein said virtual file system is a File Allocation Table (FAT) file system

(Column 6, line 20-21 "Conversion from a simpler file system, such as a FAT file system, to a

more complex or advanced file system."), indicates the fact that the virtual file system is a FAT.

However, Orcutt does not explicitly disclose

wherein said main file system is a Universal Disc Format (UDF) file system,

On the other hand, Moore in an analogous art discloses **file system is a Universal Disc**

Format (UDF) file system (Column 1, line24-25 "such as ISO9660 and Universal Disk

Format (UDF),

are used.").

Therefore, it would have been obvious to a person in the ordinary skill in the art at the time of

the invention to incorporate the teaching of Moore into the method of Orcutt. One having

ordinary skill in the art would have found it motivated to use the **Universal Disc Format (UDF)**

file system, format of Moore into the system of Orcutt for the purpose of enabling the system

conversion process to include a wide variety of storage device format.

As per claim 9, Orcutt discloses:

<u>**The recording**</u> **apparatus as claimed in claim 8, wherein said recording means (6)**

and said reading means (6) are adapted for accessing an optical disk (7),

(Column 26, line 38-42 "The computer 602 is capable of using one or more floppy

drives, tape drives, optical drives and/or other means to read a storage medium. A

suitable storage medium includes a magnetic, optical, or other computer-readable

storage device having a specific physical substrate configuration."), illustrates the

access of an optical disk derives.

and wherein said interface (4) is adapted for communicating with a compact flash form

factor drive (2) using a file allocation table system

(Column 26, line 42-52 "Suitable storage devices include floppy disks, hard disks, tape, CD-

ROMs, DVDs, PROMs, RAM, flash memory and other computer system storage devices. The

substrate configuration represents data and instructions which cause the computer system to

operate in a specific and predefined manner as described herein. Thus, the medium tangibly

embodies a program, functions, and/or instructions that are executable by the standalone

machines, servers and/or network client computers to perform file system conversion steps of

the present invention."), Since the Orcutt invention talks about converting simple File system

such as FAT to a more advanced file system, it illustrates the fact that the interface is adapted

to communicate with a memory flash device using a File allocation table file system.

However, Orcutt does not explicitly disclose:

in particular a small form factor optical disk using a universal disc format,

But on the other hand, Moore in an analogous art discloses **file system is a Universal Disc**

Format (UDF) file system (Column 1, line24-25 "such as ISO9660 and Universal Disk

Format (UDF),

are used.").

Therefore, it would have been obvious to a person in the ordinary skill in the art at the time of

the invention to incorporate the teaching of Moore into the method of Orcutt. One having

ordinary skill in the art would have found it motivated to use the **Universal Disc Format (UDF)**

file system, format of Moore into the system of Orcutt for the purpose of enabling the system

conversion process to include a wide variety of storage device format.

As per claim 10, Orcutt substantially disclosed the invention as claimed

However, Orcutt does not explicitly disclose **MRAM unit memory means** but on the other hand,

Moore in an analogous art discloses the **MRAM unit memory means** (Column 7, line 45-48

"the memory array comprises a semiconductor material. Other materials can be used, such as,

but not limited to, phase-change materials and amorphous solids as well as those used with

MRAM").

Therefore, it would have been obvious to a person in the ordinary skill in the art at the time of

the invention to incorporate the teaching of Moore into the method of Orcutt. One having

ordinary skill in the art would have found it motivated to use the **MRAM unit memory means** of

Moore into the system of Orcutt for the purpose of enabling the system conversion process to

include a wide variety of storage device format.

5.   Conclusion

As necessitated by amendment, **THIS ACTION IS MADE FINAL**. Applicant is reminded of the

extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the

mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of

this final action and the advisory action is not mailed until after the end of the THREE-MONTH

shortened statutory period, then the shortened statutory period will expire on the date the advisory action

is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX

MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be

directed to Tarek Chbouki whose telephone number is 571-2703154. The examiner can normally be

reached on Mon-Fri 7:30 am to 5:00 pm EST. If attempts to reach the examiner by telephone are

unsuccessful, the examiner's supervisor, Chace Christian can be reached on

571-2724190. The fax phone number for the organization where this application or proceeding is assigned

is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application

Information Retrieval (PAIR) system. Status information for published applications may be obtained

from either Private PAIR or Public PAIR. Status information for unpublished applications is available

through Private PAIR only. For more information about the PAIR system, see http://pair-

direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer

Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR

CANADA) or 571-272-1000.

Tarek Chbouki
TC
Patent Examiner

Art Unit: 2169

11/28/2007

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